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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,265	11/19/2003	Hoon Kim	5000-1-481	7394

7590 09/21/2006

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EXAMINER	
PAYNE, DAVID C	

ART UNIT	PAPER NUMBER
2613	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/717,265	KIM ET AL.	
	Examiner	Art Unit	
	David C. Payne	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 6, 11 and 16* is/are rejected.

7)☒ Claim(s) *2-5,7-10,12-15 and 17-20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). **The drawings must show every feature of the invention specified in the claims.** Therefore, the **processor** and **display screen (claims 3-5, 8-10, 13-15, and 18-20)** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 6, 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glingener et al. US 6816299 B1 (Glingener) in view of Kollanyi US 4757193 A (Kollanyi).

Re claims 1, 6, 11 and 16, Glingener disclosed

The system illustrated in FIG. 1 contains a Mach-Zehnder modulator (MZI) 4, to which an optical signal OS is supplied from a laser 3. The modulator 4 is modulated with a data signal DS, which is supplied from a data source, as a modulation signal U.sub.DAT, via a controllable amplifier 2. The modulated optical transmission signal OSM is transmitted. A small portion of the signal is supplied via an optical splitter 5 to an optoelectrical transducer 6 with a downstream amplifier 7, and is demodulated. The electrical data signal DS1 recovered in this way essentially contains the modulation signal U.sub.DAT or data signal DS. The data signal DS1 is supplied via an amplifier 7 to two filters, the bandpass filters 8 and 10. The first bandpass filter 8 filters the fundamental frequency GW out of the data signal DS1; that is to say, its pass frequency is at half the bit rate. A low-pass-filtered 01 bit sequence essentially results in a sinusoidal voltage at a frequency corresponding to half the data rate (a derived data signal also may be used instead of the NRZ data signal). The output voltage from the first bandpass filter 8 is supplied directly or via a measurement transducer 9, such as a rectifier or a power measurement device, as a control signal U.sub.R1 to a control device 12. In the exemplary embodiment, a second bandpass filter 10 is provided and tuned to a harmonic frequency OW, preferably the first. Its output voltage is also supplied directly or via a second measurement transducer 11 as a further control signal U.sub.R2 to the control device 12. Additional bandpass filters also may be provided for filtering out further harmonic frequencies, and their output voltages can be combined. The control device produces, via a regulator 17, a control signal U.sub.BIAS, which governs the operating point of the modulator 4.

As already mentioned, the first bandpass filter BP1 filters out the fundamental frequency GW. Deviations from the operating point or overdriving caused by an excessively large modulation signal lead to a reduction in the amplitude of the fundamental frequency (sinusoidal signal), since the harmonics which then occur result in the fundamental frequency spectral component decreasing. A corresponding situation applies to the control signal U.sub.R1 obtained from the sinusoidal signal. An opposite situation applies to the wave form for the harmonic frequencies. Their amplitudes and, thus, the amplitudes of the control signals U.sub.R2, . . . increase when overdriving occurs.

FIG. 3 shows a variant in which the control signals U.sub.R1, U.sub.R2 are derived from the received signal OEM at the end of a transmission path (at the receiving end). The control process also can, in this way, take account of the line characteristics. The demodulation of the received signal OEM is carried out in a receiving device 20. The demodulated data signal DS1 is once again evaluated via filters 8, 10 and is converted by the measurement transducers 9, 11 to control signals U.sub.R1, U.sub.R2 which, after inversion of one control signal via an inverting amplifier 13, are combined in an adder 16 to form a resultant control signal U.sub.R.

The control device 12 may be arranged at the receiving end or at the transmitting end. In this exemplary embodiment, the combined control signal U.sub.R is transmitted via a service channel 22 to the control device 12 arranged at the transmitting end, in order to optimize the operating point and/or the amplitude of the modulation signal, e.g. col./line: 2/50-67, 3/1-25, 3/65-67, 4/1-20.

Glingener does not disclosed the CDR unit. Kollanyi disclosed a CDR unit, "The amplified electrical signals are passed to a Post Amp & Clock Recovery Circuit 120 where they are further amplified and a clock signal is extracted from the input electrical signal. The extracted clock is reclocked and the data and clock are passed on to the ESP 200 via the RCV. DATA line and RCV. CLOCK line respectively." e.g. col./line: 2/50-67. It would have been obvious to one of ordinary skill in the art at the time of invention to add the CDR to Glingener in order to accurately retime the data coming into the receiver.

Allowable Subject Matter

5. Claims 2-5, 7-10, 12-15, and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7:00a - 4:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dcp

David C. Payne

David C. Payne
Primary Examiner
AU 2613

Notice of References Cited	Application/Control No. 10/717,265	Applicant(s)/Patent Under Reexamination KIM ET AL.	
	Examiner David C. Payne	Art Unit 2613	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,816,299	11-2004	Glingener et al.	359/276
*	B	US-4,757,193	07-1988	Kollanyi, Miklos J.	250/214R
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
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